

**IN THE CLAIMS**

Please amend the claims as follows:

1 1. (Canceled)

1 2. (Canceled)

1 3. (Canceled)

1 4. (Canceled)

1 5. (Canceled)

1 6. (Canceled)

1 7. (Canceled)

1 8. (Canceled)

1 9. (Canceled)

1 10. (Canceled)

1 11. (Canceled)

1 12. (Canceled)

1 13. (Canceled)

1 14. (Canceled)

1 15. (Canceled)

1 16. (Previously Amended) A method for monitoring the film build  
2 thickness of workpieces on which a first film build process has been performed,  
3 comprising the steps of:

4 calculating a first  $C_{pk}$  of workpieces on which a first film build  
5 process has been performed;

6 acquiring data relating to parameters of a second film build  
7 process in which at least one of the parameters of the first film build process has  
8 been changed;

9 calculating a second  $C_{pk}$  of the second film build process  
10 from said acquired data; and

11 calculating the difference between the first  $C_{pk}$  and the  
12 second  $C_{pk}$  to ascertain the relationship between said difference and the  
13 changed parameter.

1        17. (Previously Added) A method as defined in claim 16, including the  
2 step of acquiring cost data relating to said first film build process and cost data  
3 relating to said second film build process; and

4 generating a cost difference utilizing the first film build  
5 process and the second film build process utilizing the first  $C_{pk}$  and the second  
6  $C_{pk}$ .

1 18. (Previously Added) A method as defined in claim 16, including the  
2 step of calculating the  $C_{pk}$  of at least one of said film build processes from range  
3 values of the film build thickness of the corresponding film build process.

1           19. (Previously Added and Amended) A method as defined in claim  
2        16, including the step of acquiring selected coating millages relating to said first  
3        film build process and selected coated millages relating to said second film build  
4        process; and

5 generating a cost difference between the first film build  
6 process and the second film build process utilizing the first Cpk and the second  
7 Cpk to ascertain the mean shift in Film Build millages.

1 20. (Previously Added and Amended) A method as defined in claim  
2 16, including the step of acquiring target range values relating to said first film

Applicant: Stephen N. Gaiski  
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3 build process and target range values relating to said second film build process;

4 and

5 generating a cost difference between the first film build

6 process and the second film build process utilizing the first  $C_{pk}$  and the second

7  $C_{pk}$ .

1 21. (Previously Added) A method as defined in claim 16, including the

2 step of acquiring data of the cost difference between the first and the second film

3 build processes in which both of said film build processes have the same film

4 thickness averages but with a different  $C_{pk}$  for the first and the second film build

5 processes.

1 22. (Previously Added and Amended) A method as defined in claim 16,

2 including the step of acquiring data of the first film build process including

3 Coating Minimum Specifications, Actual Film Thickness Average, Actual Film

4 Thickness Range, the  $C_{pk}$  of the first film process, and a subgroup size.

1 23. (Previously Added and Amended) A method as defined in claim 16,

2 including the step of acquiring data regarding film build usage, of the first film

3 build process and film build usage data of the second film build process, and in

4 which the changed parameter is the film build material usage of said first film

5 process, and then calculating the difference in film build material usage from the

6 difference in the first  $C_{pk}$  value and the second  $C_{pk}$  value.

1           24. (Previously Added and Amended) A method as defined in claim 16,  
2        in which the changed parameter is the process control limits of the second film  
3        build process and then calculating the change in film build material usage from  
4        the difference in the first  $C_{pk}$  value and the second  $C_{pk}$  value.

1           25. (Previously Added) A method as defined in claim 22, including the  
2        step of selecting target range values for the first film process and the second film  
3        process, and then calculating the differences in the film build material usage from  
4        the difference between the first  $C_{pk}$  value and the second value  $C_{pk}$ .

1           26. (Previously Added and Amended) A method as defined in claim 16,  
2        including the step of acquiring data of the film build material usage of the first film  
3        build process, then selecting coating millages for at least one of said film build  
4        processes, and then calculating the change in film build material usage from the  
5        difference between said first  $C_{pk}$  value and the second  $C_{pk}$  value.

1           27. (Previously Added and Amended) A method as defined in claim 16,  
2        including the step of acquiring data regarding the material usage values of the  
3        first film build process and the film usage of the second film build process based  
4        on using the same film thickness with different variability for the first and the  
5        second film build processes and then calculating the change in film build usage  
6        from the difference between said first  $C_{pk}$  value and the second  $C_{pk}$  value.

1        28. (Previously Added and Amended) A method as defined in claim 16,  
2 including the step of calculating the optimal variability of the first film build  
3 process by adjusting the film millage average thereof, using said first  $C_{pk}$ , and in  
4 which optimal variability is defined as the lowest standard deviation in a run of  
5 seven or more units in the film build process.

1           29. (Previously Added and Amended) A method as defined in claim 16,  
2 including the step of calculating the optimal variability of said first film build  
3 process by adjusting the film millage costs thereof utilizing said first  $C_{pk}$  and in  
4 which optimal variability is defined as the lowest standard deviation in a run of  
5 seven or more units in the build process

1           30. (Previously Added and Amended) A method as defined in claim 16,  
2 including the step of adjusting the variability of the first film build process to  
3 optimize the film millage average.

Applicant: Stephen N. Gaiski  
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6                           means for acquiring data relating to parameters of a second  
7    film build process in which at least one of the parameters thereof has been  
8    changed;

9                           computer-implemented means for calculating a second  $C_{pk}$   
10   of the second film build process; and

11                           computer-implemented means for calculating the difference  
12   between the first  $C_{pk}$  and the second  $C_{pk}$  to develop a relationship between said  
13   difference and the changed parameter.